

11/12/57

Livestock Flies - Gen
Rowland Richards

Control of Screw-worm Larvae With Baygon 21/99
Applied as a 0.5% Spray

Callaghan Ranch, Webb Co, Texas

The Callaghan Ranch was selected as the site for a continuous screw-worm control test because of the large number of cattle available and because in normal years, screw-worm infestations are expected throughout the entire year.

Sprays of a 0.5% suspension of Baygon 21/99 were applied at the approximate rate of $\frac{3}{4}$ -1 gallon per animal at 300-350 # pressure. The entire body of the animal was thoroughly covered. The animals were marked with identifying marks of white marking paint and were held for observation in the several screw-worm traps about the ranch. One screw-worm trap was maintained as a control, with the normal ranch treatment of locally-made Smear 62 applied to the worm cases at 2-3 day intervals. The sprayed animals were checked by the ranch hands at the same interval and were penned at weekly intervals and very close checks were made by me.

Had re-infestation by screw-worm occurred, the animals were to be re-sprayed at weekly intervals.

During the test period, there were no rains of sufficient amounts to produce any failure.

Screw-worm Test at Callagh Ranch

However, cool weather accompanied by light drizzle curtailed adult fly activity and reinfestation pressure diminished from moderate to practically none.

new egg masses were noted on approximately 40% of all treated screw-worm cases during the first ten days of the test. Following the onset of this cool, damp weather, new screw-worm ^{cases} were extremely few in number and egg deposition on treated wounds was rare.

Final records will be taken this week and the next, provided adult activity has not increased sufficiently to justify further spraying. Actual temperature ranges for the test period is being obtained and will be included with the final data.

Incomplete Results of Test at the Callaghan Ranch, Webb Co, Texas, - 0.5% Bayer 21/199 applied as a spray to active screw-worm cases -

<u>DATE SPRAYED</u>	<u>SW CASES</u>	<u>TOTAL SPRAYED</u>
10/18	48	50
10/23	3	20
10/24	35	92
10/25	14	28
10/29	8	36
10/31	1	1
11/1	<u>1</u>	<u>1</u>
	110	228

Screw-worm Test at Callaghan Ranch

The figure given under SW cases was the actually number of ^{untreated} cases at the time of spraying. The remainder were animals with previous screw-worm cases which had been treated with omeas 62, with wounds subject to screwworm strikes, but at the time of spraying, did not have active screwworm cases.

Results to date (11/12/57)

Of the total animals treated, only two animals required additional treatment. Both animals, treated on 10/18, had the infestation in the ear. On examination 10/25, both animals had been re-infested in the ear. Further checks on 11/1 revealed that one of the two animals had again been reinfested. At the time of the second spraying (10/25), care was taken to insure thorough wetting of the inside of the ear.

No other retreatment of any of the sprayed animals was required. However, reinfestation was sharply reduced around 10/28, as evidenced by the marked decline in new egg masses on the treated animals and also the fact that ^{only 2} new cases were discovered by the ranch hands as they periodically rode the various pastures.

Final results will be compiled at the completion of this test, which would appear to be late in November.

Talked to John Arndt by telephone on Nov 29 and it was reported that (over)

no new cases had appeared in any of
the cattle but there has not been any
reinfestation pressure since Richards
left the ranch